

What is claimed is:

1. A method for manufacturing engineered tissue, comprising the steps of:

(A) profiling a sample of normal tissue specimens obtained from a subset of a population of subjects with shared characteristics to generate a plurality of structural indices that correspond to statistically significant representations of characteristics of tissue associated with the population, wherein the plurality of structural indices include cell density, matrix density, blood vessel density and layer thickness;

(B) forming an engineered tissue design in accordance with the structural indices generated in step (A); and

(C) manufacturing engineered tissue in accordance with the engineered tissue design.

2. The method of claim 1, wherein step (A) comprises the steps of:

(i) deriving imaging information by imaging a plurality of sections of each tissue specimen from the subset;

(ii) determining distributions of cell density values, matrix density values and blood vessel density values associated with the plurality of sections in accordance with the imaging information; and

(iii) determining a cell density index representative of tissue associated with the population in accordance with the distribution of cell density values determined in step (ii);
determining a matrix density index representative of tissue associated with the population in

accordance with the distribution of matrix density values determined in step (ii); and determining a blood vessel density index representative of tissue associated with the population in accordance with the distribution of blood vessel density values determined in step (ii).

3. The method of claim 2, wherein step (A)(iii) comprises:

(iii) determining a cell density index representative of tissue associated with the population by calculating a statistical average of the distribution of cell density values determined in step (ii); determining a matrix density index representative of tissue associated with the population by calculating a statistical average of the distribution of matrix density values determined in step (ii); and determining a blood vessel density index representative of tissue associated with the population by calculating a statistical average of the distribution of blood vessel density values determined in step (ii).

4. The method of claim 3, wherein the statistical average of the distribution of cell density values corresponds to a mean, median or mode of the distribution of cell density values, the statistical average of the distribution of matrix density values corresponds to a mean, median or mode of the distribution of matrix density values, and the statistical average of the distribution of blood vessel density values corresponds to a mean, median or mode of the distribution of blood vessel density values.

5. The method of claim 4, wherein step (A)(iii) further comprises:

(iii) determining a further cell density index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of cell density values determined in step (ii); determining a further matrix density index representative

of tissue associated with the population by calculating an index of dispersion associated with the distribution of matrix density values determined in step (ii); and determining a further blood vessel density index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of blood vessel density values determined in step (ii).

6. The method of claim 5, wherein the index of dispersion associated with the distribution of cell density values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of cell density values, the index of dispersion associated with the distribution of matrix density values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of matrix density values, and the index of dispersion associated with the distribution of blood vessel density values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of blood vessel density values.

7. The method of claim 6, wherein the plurality of structural indices generated in step (A) further include relative cell location, relative matrix location, and relative blood vessel location.

8. The method of claim 7, wherein step (A)(ii) further comprises the steps of:

(ii) determining distributions of relative cell location values, relative matrix location values and relative blood vessel location values associated with the plurality of sections in accordance with the imaging information; and

step (A)(iii) further comprises the step of:

(iii) determining a relative cell location index representative of tissue associated with the population in accordance with the distribution of relative cell location values determined in step (ii); determining a relative matrix location index representative of tissue associated with the population in accordance with the distribution of relative matrix location values determined in step (ii); and determining a relative blood vessel location index representative of tissue associated with the population in accordance with the distribution of relative blood vessel location values determined in step (ii).

9. The method of claim 8, wherein step (A)(iii) further comprises:

(iii) determining a relative cell location index representative of tissue associated with the population by calculating a statistical average of the distribution of relative cell location values determined in step (ii); determining a relative matrix location index representative of tissue associated with the population by calculating a statistical average of the distribution of relative matrix location values determined in step (ii); and determining a relative blood vessel location index representative of tissue associated with the population by calculating a statistical average of the distribution of relative blood vessel location values determined in step (ii).

10. The method of claim 9, wherein the statistical average of the distribution of relative cell location values corresponds to a mean, median or mode of the distribution of relative cell location values, the statistical average of the distribution of relative matrix location values corresponds to a mean, median or mode of the distribution of relative matrix location values, and the statistical average of the distribution of relative blood vessel location values corresponds to a mean, median or mode of the distribution of relative blood vessel location values.

11. The method of claim 10, wherein step (A)(iii) further comprises:

(iii) determining a further relative cell location index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of relative cell location values determined in step (ii); determining a further relative matrix location index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of relative matrix location values determined in step (ii); and determining a further relative blood vessel location index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of relative blood vessel location values determined in step (ii).

12. The method of claim 11, wherein the index of dispersion associated with the distribution of relative cell location values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of relative cell location values, the index of dispersion associated with the distribution of relative matrix location values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of relative matrix location values, and the index of dispersion associated with the distribution of relative blood vessel location values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of relative blood vessel location values.

13. The method of claim 12, wherein the engineered tissue design formed in step (B) includes coordinates of cells, matrices and blood vessels.

14. The method of claim 13, wherein the coordinates correspond to Cartesian coordinates.

15. The method of claim 12, wherein the imaging information is derived in step (A) using at least one imaging modality selected from the following group of imaging modalities: light microscopy, fluorescent microscopy, spectral microscopy, hyper-spectral microscopy, electron microscopy, confocal microscopy and optical coherence tomography.

16. The method of claim 15, wherein the imaging information is derived in step (A) using a combination of two or more imaging modalities selected from the following group of imaging modalities: light microscopy, fluorescent microscopy, spectral microscopy, hyper-spectral microscopy, electron microscopy, confocal microscopy and optical coherence tomography.

17. The method of claim 12, wherein the sample of normal tissue specimens corresponds to a group of normal tissue specimens associated with a specific race, sex, age, disease, physical fitness level, behavior, geographic location or nationality of persons.

18. The method of claim 17, wherein the specific race is one of the group consisting of Caucasian, Asian, Indian or Negro.

19. The method of claim 12, wherein the engineered tissue design conforms to a normal tissue structure.

20. The method of claim 19, wherein the engineered tissue design conforms to a living tissue structure.

21. The method of claim 20, wherein the population of subjects consists of a group of subjects classified in a specific animal species.

22. The method of claim 20, wherein the population of subjects consists of a group of subjects classified in a specific plant species.

23. The method of claim 12, wherein the engineered tissue design conforms to a virtual tissue structure.

24. The method of claim 12, wherein the normal tissue specimens from the subset of the population do not include blood vessels and the blood vessel density index generated in step (A) is zero.

25. The method of claim 12, wherein the cell density index generated in step (A) is an average cell density value associated with a specific cell type contained within the normal tissue specimens.

26. The method of claim 25, wherein the plurality of structural indices generated in step (A) include a plurality of average cell density values each of which is associated with a specific cell type contained within the normal tissue specimens.

27. The method of claim 12, wherein the plurality of structural indices generated in step (A) further comprise a parameter representative of average cell content within the population.

28. The method of claim 12, wherein the plurality of structural indices generated in step (A) further comprise a parameter representative of average cell type within the population.

29. The method of claim 12, wherein step (A) further comprises profiling the sample of normal tissue specimens obtained from the subset of the population with shared characteristics

to generate one or more mechanical indices that correspond to statistically significant representations of characteristics of tissue associated with the population, and step (B) comprises forming the engineered tissue design in accordance with the structural indices and the mechanical indices.

30. The method of claim 29, wherein at least one of the mechanical indices corresponds to a modulus of elasticity associated with the normal tissue specimens.

31. The method of claim 30, wherein step (A)(ii) further comprises:

(ii) determining a distribution of elasticity values associated with the plurality of sections; and

and step (A)(iii) further comprises:

(iii) determining an elasticity index representative of tissue associated with the population in accordance with the distribution of elasticity values determined in step (ii).

32. The method of claim 31, wherein step (A)(iii) further comprises:

(iii) determining an elasticity index representative of tissue associated with the population by calculating a statistical average of the distribution of elasticity values determined in step (ii).

33. The method of claim 32, wherein the statistical average of the distribution of elasticity values corresponds to a mean, median or mode of the distribution of elasticity values.

34. The method of claim 33, wherein step (A)(iii) further comprises:

(iii) determining a further elasticity index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of elasticity values determined in step (ii).

35. The method of claim 34, wherein the index of dispersion associated with the distribution of elasticity values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of elasticity values.

36. The method of claim 29, wherein at least one of the mechanical indices corresponds to a mechanical strength associated with the normal tissue specimens.

37. The method of claim 36, wherein the mechanical strength corresponds to a breaking strength associated with the normal tissue specimens.

38. The method of claim 36, wherein step (A)(ii) further comprises:

(ii) determining a distribution of mechanical strength values associated with the plurality of sections; and

and step (A)(iii) further comprises:

(iii) determining a mechanical strength index representative of tissue associated with the population in accordance with the distribution of mechanical strength values determined in step (ii).

39. The method of claim 38, wherein step (A)(iii) further comprises:

(iii) determining a mechanical strength index representative of tissue associated with the population by calculating a statistical average of the distribution of mechanical strength values determined in step (ii).

40. The method of claim 39, wherein the statistical average of the distribution of mechanical strength values corresponds to a mean, median or mode of the distribution of mechanical strength values.

41. The method of claim 40, wherein step (A)(iii) further comprises:

(iii) determining a further mechanical strength index representative of tissue associated with the population by calculating an index of dispersion associated with the distribution of mechanical strength values determined in step (ii).

42. The method of claim 41, wherein the index of dispersion associated with the distribution of mechanical strength values corresponds to a standard deviation, standard error of the mean or range associated with the distribution of mechanical strength values.

43. The method of claim 12, wherein step (A) further comprises performing a plurality of cell function assays on the sample of normal tissue specimens obtained from the subset of the population of subjects with shared characteristics and generating a plurality of cell function indices that correspond to statistically significant representations of characteristics of tissue associated with the population in accordance with results of the cell function assays, and step (B) comprises forming the engineered tissue design in accordance with the structural indices and functional indices.

44. The method of claim 43, wherein step (A) further comprises forming a cell function map in accordance with the cell function indices, and step (B) comprises forming the engineered tissue design in accordance with the cell function map.

45. The method of claim 43, wherein the cell function indices include location, type and amount of DNA in the normal tissue specimens from the subset.

46. The method of claim 43, wherein the cell function indices include location, type and amount of mRNA in the normal tissue specimens from the subset.

47. The method of claim 43, wherein the cell function indices include location, type and amount of cellular proteins in the normal tissue specimens from the subset.

48. The method of claim 43, wherein the cell function indices include location, type and amount of cellular lipids in the normal tissue specimens from the subset.

49. The method of claim 43, wherein the cell function indices include location, type and amount of cellular ion distributions in the normal tissue specimens from the subset.

50. The method of claim 13, wherein step (B) further comprises forming the engineered tissue design in accordance a correlation between two structural indices.

51. The method of claim 29, wherein step (B) further comprises forming the engineered tissue design in accordance a correlation between two mechanical indices.

52. The method of claim 43, wherein step (B) further comprises forming the engineered tissue design in accordance a correlation between two cell function indices.

53. The method of claim 29, wherein step (B) further comprises forming the engineered tissue design in accordance a correlation between a structural index and a mechanical index.

54. The method of claim 43, wherein step (B) further comprises forming the engineered tissue design in accordance a correlation between a structural index and a cell function index.

55. The method of claim 43, wherein step (B) further comprises forming the engineered tissue design in accordance a correlation between a mechanical index and a cell function index.

56. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal lung tissue specimens, and the engineered tissue design corresponds to an engineered lung tissue design.

57. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal intestine tissue specimens, and the engineered tissue design corresponds to an engineered intestine tissue design.

58. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal cartilage tissue specimens, and the engineered tissue design corresponds to an engineered cartilage tissue design.

59. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal eye tissue specimens, and the engineered tissue design corresponds to an engineered eye tissue design.

60. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal bone tissue specimens, and the engineered tissue design corresponds to an engineered bone tissue design.

61. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal fat tissue specimens, and the engineered tissue design corresponds to an engineered fat tissue design.

62. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal muscle tissue specimens, and the engineered tissue design corresponds to an engineered muscle tissue design.

63. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal kidney tissue specimens, and the engineered tissue design corresponds to an engineered kidney tissue design.

64. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal brain tissue specimens, and the engineered tissue design corresponds to an engineered brain tissue design.

65. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal heart tissue specimens, and the engineered tissue design corresponds to an engineered heart tissue design.

66. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal liver tissue specimens, and the engineered tissue design corresponds to an engineered liver tissue design.

67. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal skin tissue specimens, and the engineered tissue design corresponds to an engineered skin tissue design.

68. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal pleura tissue specimens, and the engineered tissue design corresponds to an engineered pleura tissue design.

69. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal peritoneum tissue specimens, and the engineered tissue design corresponds to an engineered peritoneum tissue design. A

70. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal pericardium tissue specimens, and the engineered tissue design corresponds to an engineered pericardium tissue design.

71. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal dura-mater tissue specimens, and the engineered tissue design corresponds to an engineered dura-mater tissue design.

72. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal oral-nasal mucus membrane tissue specimens, and the engineered tissue design corresponds to an engineered oral-nasal mucus membrane tissue design.

73. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal pancreas tissue specimens, and the engineered tissue design corresponds to an engineered pancreas tissue design.

74. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal spleen tissue specimens, and the engineered tissue design corresponds to an engineered spleen tissue design.

75. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal gall bladder tissue specimens, and the engineered tissue design corresponds to an engineered gall bladder tissue design.

76. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal blood vessel tissue specimens, and the engineered tissue design corresponds to an engineered blood vessel tissue design.

77. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal bladder tissue specimens, and the engineered tissue design corresponds to an engineered bladder tissue design.

78. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal uterus tissue specimens, and the engineered tissue design corresponds to an engineered uterus tissue design.

79. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal ovarian tissue specimens, and the engineered tissue design corresponds to an engineered ovarian tissue design.

80. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal urethra tissue specimens, and the engineered tissue design corresponds to an engineered urethra tissue design.

81. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal penile tissue specimens, and the engineered tissue design corresponds to an engineered penile tissue design.

82. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal vaginal tissue specimens, and the engineered tissue design corresponds to an engineered vaginal tissue design.

83. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal esophagus tissue specimens, and the engineered tissue design corresponds to an engineered esophagus tissue design.

84. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal anus tissue specimens, and the engineered tissue design corresponds to an engineered anus tissue design.

85. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal adrenal gland tissue specimens, and the engineered tissue design corresponds to an engineered adrenal gland tissue design.

86. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal ligament tissue specimens, and the engineered tissue design corresponds to an engineered ligament tissue design.

87. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal intervertebral disk tissue specimens, and the engineered tissue design corresponds to an engineered intervertebral disk tissue design.

88. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal bursa tissue specimens, and the engineered tissue design corresponds to an engineered bursa tissue design.

89. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal meniscus tissue specimens, and the engineered tissue design corresponds to an engineered meniscus tissue design.

90. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal fascia tissue specimens, and the engineered tissue design corresponds to an engineered fascia tissue design.

91. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal bone marrow tissue specimens, and the engineered tissue design corresponds to an engineered bone marrow tissue design.

92. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal tendon tissue specimens, and the engineered tissue design corresponds to an engineered tendon tissue design.

93. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal pulley tissue specimens, and the engineered tissue design corresponds to an engineered pulley tissue design.

94. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal tendon sheath tissue specimens, and the engineered tissue design corresponds to an engineered tendon sheath tissue design.

95. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal lymph node tissue specimens, and the engineered tissue design corresponds to an engineered lymph node tissue design.

96. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to normal nerve tissue specimens, and the engineered tissue design corresponds to an engineered nerve tissue design.

97. The method of claim 96, wherein the normal tissue specimens profiled in step (A) correspond to normal motor nerve tissue specimens, and the engineered tissue design corresponds to an engineered motor nerve tissue design.

98. The method of claim 96, wherein the normal tissue specimens profiled in step (A) correspond to normal sensory nerve tissue specimens, and the engineered tissue design corresponds to an engineered sensory nerve tissue design.

99. The method of claim 96, wherein the normal tissue specimens profiled in step (A) correspond to normal autonomic nerve tissue specimens, and the engineered tissue design corresponds to an engineered autonomic nerve tissue design.

100. The method of claim 12, wherein the normal tissue specimens profiled in step (A) correspond to first and second groups of different normal tissue specimens, wherein the first and second groups each correspond to a set of either normal intestine tissue specimens, normal cartilage tissue specimens, normal eye tissue specimens, normal bone tissue specimens, normal fat tissue specimens, normal muscle tissue specimens, normal kidney tissue specimens, normal brain tissue specimens, normal heart tissue specimens, normal liver tissue specimens, normal

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skin tissue specimens, normal pleura tissue specimens, normal peritoneum tissue specimens, normal pericardium tissue specimens, normal dura-mater tissue specimens, normal oral-nasal mucus membrane tissue specimens, normal pancreas tissue specimens, normal spleen tissue specimens, normal gall bladder tissue specimens, normal blood vessel tissue specimens, normal bladder tissue specimens, normal uterus tissue specimens, normal ovarian tissue specimens, normal urethra tissue specimens, normal penile tissue specimens, normal vaginal tissue specimens, normal esophagus tissue specimens, normal anus tissue specimens, normal adrenal gland tissue specimens, normal ligament tissue specimens, normal intervertebral disk tissue specimens, normal bursa tissue specimens, normal meniscus tissue specimens, normal fascia tissue specimens, normal bone marrow tissue specimens, normal tendon tissue specimens, normal pulley tissue specimens, normal tendon sheath tissue specimens, normal lymph node tissue specimens, or normal nerve tissue specimens, and the engineered tissue design corresponds to an engineered composite tissue design.

101. The method of claim 12, wherein the engineered tissue design includes at least one structural feature that repeats in a common fashion throughout the design.

102. The method of claim 43, wherein the engineered tissue design includes at least one cellular function feature that repeats in a common fashion throughout the design.

103. A method for manufacturing engineered tissue, comprising the steps of:

(A) performing a plurality of cell function assays on a sample of normal tissue specimens obtained from a subset of the population of subjects with shared characteristics and generating a plurality of cell function indices that correspond to statistically significant

representations of characteristics of tissue associated with the population in accordance with results of the cell function assays;

(B) forming an engineered tissue design in accordance with the cell function indices; and

(C) manufacturing engineered tissue in accordance with the engineered tissue design.

104. The method of claim 103, wherein step (A) further comprises forming a cell function map in accordance with the cell function indices, and step (B) comprises forming the engineered tissue design in accordance with the cell function map.

105. The method of claim 103, wherein the cell function indices include location, type and amount of DNA in the normal tissue specimens from the subset.

106. The method of claim 103, wherein the cell function indices include location, type and amount of mRNA in the normal tissue specimens from the subset.

107. The method of claim 103, wherein the cell function indices include location, type and amount of cellular proteins in the normal tissue specimens from the subset.

108. The method of claim 103, wherein the cell function indices include location, type and amount of cellular lipids in the normal tissue specimens from the subset.

109. The method of claim 103, wherein the cell function indices include location, type and amount of cellular ion distributions in the normal tissue specimens from the subset.

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111. The method of claim 103, wherein the engineered tissue design includes at least one cellular function feature that repeats in a common fashion throughout the design.



項目	1990年	1991年	1992年	1993年	1994年	1995年	1996年	1997年	1998年	1999年	2000年	2001年	2002年	2003年	2004年	2005年	2006年	2007年	2008年	2009年	2010年	2011年	2012年	2013年	2014年	2015年	2016年	2017年	2018年	2019年	2020年	2021年	2022年	2023年	2024年	2025年	2026年	2027年	2028年	2029年	2030年	2031年	2032年	2033年	2034年	2035年	2036年	2037年	2038年	2039年	2040年	2041年	2042年	2043年	2044年	2045年	2046年	2047年	2048年	2049年	2050年	2051年	2052年	2053年	2054年	2055年	2056年	2057年	2058年	2059年	2060年	2061年	2062年	2063年	2064年	2065年	2066年	2067年	2068年	2069年	2070年	2071年	2072年	2073年	2074年	2075年	2076年	2077年	2078年	2079年	2080年	2081年	2082年	2083年	2084年	2085年	2086年	2087年	2088年	2089年	2090年	2091年	2092年	2093年	2094年	2095年	2096年	2097年	2098年	2099年	2100年																																																								
人口	120,000,000	121,000,000	122,000,000	123,000,000	124,000,000	125,000,000	126,000,000	127,000,000	128,000,000	129,000,000	130,000,000	131,000,000	132,000,000	133,000,000	134,000,000	135,000,000	136,000,000	137,000,000	138,000,000	139,000,000	140,000,000	141,000,000	142,000,000	143,000,000	144,000,000	145,000,000	146,000,000	147,000,000	148,000,000	149,000,000	150,000,000	151,000,000	152,000,000	153,000,000	154,000,000	155,000,000	156,000,000	157,000,000	158,000,000	159,000,000	160,000,000	161,000,000	162,000,000	163,000,000	164,000,000	165,000,000	166,000,000	167,000,000	168,000,000	169,000,000	170,000,000	171,000,000	172,000,000	173,000,000	174,000,000	175,000,000	176,000,000	177,000,000	178,000,000	179,000,000	180,000,000	181,000,000	182,000,000	183,000,000	184,000,000	185,000,000	186,000,000	187,000,000	188,000,000	189,000,000	190,000,000	191,000,000	192,000,000	193,000,000	194,000,000	195,000,000	196,000,000	197,000,000	198,000,000	199,000,000	200,000,000	201,000,000	202,000,000	203,000,000	204,000,000	205,000,000	206,000,000	207,000,000	208,000,000	209,000,000	210,000,000	211,000,000	212,000,000	213,000,000	214,000,000	215,000,000	216,000,000	217,000,000	218,000,000	219,000,000	220,000,000	221,000,000	222,000,000	223,000,000	224,000,000	225,000,000	226,000,000	227,000,000	228,000,000	229,000,000	230,000,000	231,000,000	232,000,000	233,000,000	234,000,000	235,000,000	236,000,000	237,000,000	238,000,000	239,000,000	240,000,000	241,000,000	242,000,000	243,000,000	244,000,000	245,000,000	246,000,000	247,000,000	248,000,000	249,000,000	250,000,000	251,000,000	252,000,000	253,000,000	254,000,000	255,000,000	256,000,000	257,000,000	258,000,000	259,000,000	260,000,000	261,000,000	262,000,000	263,000,000	264,000,000	265,000,000	266,000,000	267,000,000	268,000,000	269,000,000	270,000,000	271,000,000	272,000,000	273,000,000	274,000,000	275,000,000	276,000,000	277,000,000	278,000,000	279,000,000	280,000,000	281,000,000	282,000,000	283,000,000	284,000,000	285,000,000	286,000,000